

SEQUENCE LISTING

<110> Lovenberg, Timothy
Liu, Changlu

<120> DNAs Encoding Mammalian Histamine Receptor Of The H4 Subtype

<130> PRD-0034

<150> 09/790,849
<151> 2001-02-22

<150> 60/208,260
<151> 2000-05-31

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<170> PatentIn version 3.2

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35 40 45

Arg Ser Ser Tyr Phe Phe Leu Asn Leu Ala Ile Ser Asp Phe Phe Val
50 55 60

Gly Val Ile Ser Ile Pro Leu Tyr Ile Pro His Thr Leu Phe Glu Trp
65 70 75 80

Asp Phe Gly Lys Glu Ile Cys Val Phe Trp Leu Thr Thr Asp Tyr Leu
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195 200 205

Arg Cys Gln Ser His Pro Gly Leu Thr Ala Val Ser Ser Asn Ile Cys
210 215 220

Gly His Ser Phe Arg Gly Arg Leu Ser Ser Arg Arg Ser Leu Ser Ala
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260 265 270

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Gln Arg Glu His Val Glu Leu Leu Arg Ala Arg Arg Leu Ala Lys Ser
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325 330 335

Ser Val Trp Tyr Arg Ile Ala Phe Trp Leu Gln Trp Phe Asn Ser Phe
340 345 350

Val Asn Pro Leu Leu Tyr Pro Leu Cys His Lys Arg Phe Gln Lys Ala
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35 40 45

Arg Ser Asn Tyr Phe Phe Leu Asn Leu Ala Ile Ser Asp Phe Leu Val
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 Gly Leu Ile Ser Ile Pro Leu Tyr Ile Pro His Val Leu Phe Asn Trp
 65 70 75 80
 Asn Phe Gly Ser Gly Ile Cys Met Phe Trp Leu Ile Thr Asp Tyr Leu
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 Leu Cys Thr Ala Ser Val Tyr Asn Ile Val Leu Ile Ser Tyr Asp Arg
 100 105 110
 Tyr Gln Ser Val Ser Asn Ala Val Ser Tyr Arg Ala Gln His Thr Gly
 115 120 125
 Ile Met Lys Ile Val Ala Gln Met Val Ala Val Trp Ile Leu Ala Phe
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 Thr Asn Thr Lys Asp Cys Glu Pro Gly Phe Val Thr Glu Trp Tyr Ile
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 Ala Tyr Phe Asn Val Gln Ile Tyr Trp Ser Leu Trp Lys Arg Arg Ala
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 Ala Ser Gly His Leu His Arg Ala Gly Val Ala Cys Arg Thr Ser Asn
 225 230 235 240
 Pro Gly Leu Lys Glu Ser Ala Ala Ser Arg His Ser Glu Ser Pro Arg
 245 250 255
 Arg Lys Ser Ser Ile Leu Val Ser Leu Arg Thr His Met Asn Ser Ser
 260 265 270
 Ile Thr Ala Phe Lys Val Gly Ser Phe Trp Arg Ser Glu Ser Ala Ala
 275 280 285
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325

330

335

Pro Lys Ser Val Trp Tyr Ser Ile Ala Phe Trp Leu Gln Trp Phe Asn
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35 40 45

Arg Ser Asn Tyr Phe Phe Leu Asn Leu Ala Ile Ser Asp Phe Phe Val
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Gly Val Ile Ser Ile Pro Leu Tyr Ile Pro His Thr Leu Phe Asn Trp
65 70 75 80

Asn Pro Gly Ser Gly Ile Cys Met Phe Trp Leu Ile Thr Asp Tyr Leu
85 90 95

Leu Cys Thr Ala Ser Val Tyr Ser Ile Val Leu Ile Ser Tyr Asp Arg
100 105 110

Tyr Gln Ser Val Ser Asn Ala Val Arg Tyr Arg Ala Gln His Thr Gly
115 120 125

Ile Leu Lys Ile Val Ala Gln Met Val Ala Val Trp Ile Leu Ala Phe
130 135 140

Leu Val Asn Gly Pro Met Ile Leu Ala Ser Asp Ser Trp Lys Asn Ser
145 150 155 160

Thr Asn Thr Glu Glu Cys Glu Pro Gly Phe Val Thr Glu Trp Tyr Ile
165 170 175

Leu Ala Ile Thr Ala Phe Leu Glu Phe Leu Leu Pro Val Ser Leu Val

180

185

190

Val Tyr Phe Ser Val Gln Ile Tyr Trp Ser Leu Trp Lys Arg Gly Ser
195 200 205

Leu Ser Arg Cys Pro Ser His Ala Gly Phe Ile Ala Thr Ser Ser Arg
210 215 220

Gly Thr Gly His Ser Arg Arg Thr Gly Leu Ala Cys Arg Thr Ser Leu
225 230 235 240

Pro Gly Leu Lys Glu Pro Ala Ala Ser Leu His Ser Glu Ser Pro Arg
245 250 255

Gly Lys Ser Ser Leu Leu Val Ser Leu Arg Thr His Met Ser Gly Ser
260 265 270

Ile Ile Ala Phe Lys Val Gly Ser Phe Cys Arg Ser Glu Ser Pro Val
275 280 285

Leu His Gln Arg Glu His Val Glu Leu Leu Arg Gly Arg Lys Leu Ala
290 295 300

Arg Ser Leu Ala Val Leu Leu Ser Ala Phe Ala Ile Cys Trp Ala Pro
305 310 315 320

Tyr Cys Leu Phe Thr Ile Val Leu Ser Thr Tyr Arg Arg Gly Glu Arg
325 330 335

Pro Lys Ser Ile Trp Tyr Ser Ile Ala Phe Trp Leu Gln Trp Phe Asn
340 345 350

Ser Leu Ile Asn Pro Phe Leu Tyr Pro Leu Cys His Arg Arg Phe Gln
355 360 365

Lys Ala Phe Trp Lys Ile Leu Cys Val Thr Lys Gln Pro Ala Pro Ser
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Gln Thr Gln Ser Val Ser Ser
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Val Val Val Ile Leu Ala Phe Ile Val Asp Arg Asn Leu Arg His Arg

35

40

45

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Ala Ile Ala Ile Pro Leu Tyr Ile Pro Ser Ser Leu Thr Tyr Trp Thr
65 70 75 80

Ser Gly Lys Gln Ala Cys Val Phe Trp Leu Ile Thr Asp Tyr Leu Leu
85 90 95

Cys Thr Ala Ser Val Tyr Asn Ile Val Leu Ile Ser Tyr Asp Arg Tyr
100 105 110

Gln Ser Val Ser Asn Ala Val Trp Tyr Arg Ala Gln His Ser Gly Thr
115 120 125

Trp Lys Ile Ala Thr Gln Met Val Ala Val Trp Ile Phe Ser Phe Met
130 135 140

Thr Asn Gly Pro Met Ile Leu Ile Ser Asp Ser Trp Gln Asn Ser Thr
145 150 155 160

Thr Glu Cys Glu Pro Gly Phe Leu Lys Lys Trp Tyr Phe Ala Leu Pro
165 170 175

Thr Ser Leu Leu Glu Phe Leu Ile Pro Ile Leu Leu Val Ala Tyr Phe
180 185 190

Ser Ala His Ile Tyr Trp Ser Leu Trp Lys Arg Glu Lys Leu Ser Arg
195 200 205

Cys Leu Ser His Pro Val Leu Pro Ser Asp Ser Ser Ser Ser Asp His
210 215 220

Gly His Ser Cys Arg Gln Asp Pro Asp Ser Arg Ala Thr Leu Pro Ala
225 230 235 240

Arg Lys Glu Thr Thr Ala Ser Leu Gly Ser Asp Lys Ser Arg Arg Lys
245 250 255

Ser Ser Leu Leu Pro Ser Ile Arg Ala Tyr Lys Asn Ser Asn Val Ile
260 265 270

Ala Ser Lys Met Gly Phe Leu Ser His Ser Asp Ser Leu Ala Leu Gln
275 280 285

Gln Arg Glu His Ile Glu Leu Phe Arg Ala Arg Lys Leu Ala Lys Ser
290 295 300

Leu Ala Ile Leu Leu Ala Ala Phe Ala Ile Cys Trp Ala Pro Tyr Ser
305 310 315 320

Leu Thr Thr Val Ile Tyr Ser Phe Phe Pro Glu Arg Asn Leu Thr Lys
325 330 335

Ser Thr Trp Tyr His Thr Ala Phe Trp Leu Gln Trp Phe Asn Ser Phe
340 345 350

Val Asn Pro Phe Leu Tyr Pro Leu Cys His Lys Arg Phe Gln Lys Ala
355 360 365

Phe Leu Lys Ile Leu Pro Val Arg Arg Gln Ser Thr Pro Pro His Asn
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Arg Ser Ile Ser Thr
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